

REMARKS

This is in response to the Office Action dated April 4, 2005. Applicant amends claims 21 and 26 to correct typographical errors. Claims 21-36 are pending in the present application. Reexamination and reconsideration are respectfully requested.

The Office Action objects to claims 21-28 as indefinite. Applicant amends claim 21 to correct the ambiguity noted in the Office Action.

The Office Action rejects as obvious claims 21-23 and 25-28 over U.S. Patent No. 6,147,367 to Yang, et al. (the Yang patent) taken in view of U.S. Patent No. 4,160,308 to Courtney, et al. (the Courtney patent). Applicant submits that the cited art provides no teaching or suggestion of the hardness of the claimed silicone resin and no teaching that the hardness is a result effective variable. Consequently the claims distinguish over the cited art. Moreover, the present application demonstrates the criticality of the recited hardness range and demonstrates the patentability of the pending claims.

Pending claims 21-36 generally relate to a light emitting device such as that illustrated in FIGS. 11-15 of the present application. In these figures, a light emitting element and a semiconductor element are provided on a first lead. Wires connect each of the light emitting element and the semiconductor element to a second lead. For each of the devices illustrated in the figures there is a cavity 105 that holds at least in part a silicone resin having a hardness of not lower than 50 in JISA value. The application refers to silicone resins that have a hardness within the range of 50 to 90 in JISA value as "rubber-like" silicone resins, which stand in contrast to the more conventional "gel-like" silicone resins.

As described at pages 13-14 of the application, the rubber-like silicone resins can withstand sufficient heat to allow soldering of the leads of the light emitting

device without damage to the silicone resin. This is not generally true of the gel-like silicon resins. Application, page 14, lines 5-12. Devices using the “rubber-like” silicone resins can operate in temperature conditions of 110°C, which is also not characteristic of the conventional “gel-like” silicone resin. Application page 14, lines 13-15. Use of “rubber-like” silicone resins also provides better mechanical strength (i.e., devices that have limited deformation). Application at page 14, 24-37.

This aspect of the application’s teachings is reflected in claim 21, which recites that the silicone resin used has a “hardness not lower than 50 in JISA value.” By contrast, the art cited against the present application provides no disclosure of using a silicone resin having a particular level of hardness and certainly no teaching that the silicone resin has a hardness of not lower than 50 in JISA value, as required by all of the pending claims. The Office Action cites the Yang patent as describing a structure having two light emitting diodes within a package and the Courtney patent as describing the use of a silicone resin. As the Office Action states: “Yang et al. and Courtney et al. do not disclose the hardness is not lower than 50 in JISA value.” Office Action at page 4.

The Office Action goes on to misstate the relevant legal authority, “Where patentability is said to be based upon particular chosen dimension or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).” Office Action at page 4. The *In re Woodruff* case applies to situations in which the prior art provides a teaching about the variable in question (in the *Woodruff* case, carbon monoxide range). Here the cited art is silent as to the hardness of the silicone resin and so the *In re Woodruff* case is not applicable. The applicable, controlling authority for the present situation is *In re Antonie*, 559 F.2d 618, 620, 195 USPQ 6, 9 (CCPA 1978).

In re Antonie holds that, where the prior art does not recognize that a parameter is “a result-effective variable,” a claim that differs from the prior art in reciting an optimum range for that parameter is not rendered obvious by that prior art. *Id.* Here, the present claims recite that the silicone resin has a hardness no lower than 50 in JISA value. The cited art is silent about hardness. Consequently, *In re Antonie* dictates that the pending claims would not have been obvious over the cited art. Consequently, claims 21-36 distinguish over the cited art and are in condition for allowance.

Applicant notes that the Office Action also states that “the applicant has not established the criticality of the hardness and viscosity stated and ... these hardness and viscosity are in common use in similar devices in the art.” Office Action at 4. With respect to the second part of this statement, applicant submits that it is unaware of prior art that shows the use of the recited hardness in this device. Applicant requests that the Examiner provide such prior art so that it might be considered. With respect to the first part of this statement, applicant notes that *In re Antonie* stands for the proposition that the Office Action has not established a *prima facie* case of obviousness and that the applicant need not rebut the Office Action’s position. Moreover, the present application does discuss the criticality of the recited range and so applicant has made such a showing, contrary to the Office Action’s statement. That the discussion occurs in the patent application does not alter the fact that the showing has been set out.

In view of the foregoing, applicant respectfully submits that claims 21-36 distinguish over the art and that the application and claims are in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

Appl. No. 10/795,839
Amdt. Dated July 5, 2005
Reply to Office Action of April 4, 2005

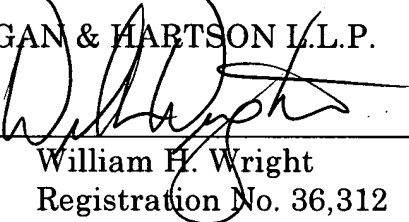
Attorney Docket No. 81788.0267
Customer No.: 26021

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6700 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
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Date: July 5, 2005

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